

ACCESSION NR: A2015766

UR/0052/64/000/011/1955/1958 26

Author: I. P. Tsvetkov, V. N. Chirkov, N. M.

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 11, 1955. ---  
macromolecular chemistry, reaction rate

ABSTRACT: A kinetic method for determining the rate constants of initiation, propagation, and termination reactions of the polymerization and copolymerization of propylene

"APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001757220017-9

CURS

53 FORMULAS, AND 1 GRAPHS.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics of the USSR)

NO KEP SOVI: 005

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001757220017-9"

Card 2/2

FIRSOV, A.P.; TSVETKOVA, V.I.; CHIRKOV, N.N.

Estimation of rate constants of the reactions of initiation,  
chain propagation, and termination in a stationary catalytic  
polymerization of propylene. Izv. AN SSSR Ser. khim. no.11:  
1956-1964 N '64 (MIRA 18:1)

1. Institut khimicheskoy fiziki AN SSSR.

ACCESSION NR: AP4019018

S/0062/64/000/002/0386/0388

AUTHORS: Meshkova, I. N.; Tsvetkova, V. I.; Chirkov, N. M.

TITLE: Rupture of the polymer chain during ethylene polymerization over  $TiCl_4-AlEt_2Cl$ 

SOURCE: AN SSSR. Izv. Seriya khimicheskaya, no. 2, 1964, 386-388

TOPIC TAGS: polyethylene chain rupture, titanium chloride, diethyl-aluminum chloride, polymer chain, ethylene, ethylene depolymerization, ethylene polymerization, polymer chain rupture

ABSTRACT: This is a continuation of the work by the same authors concerning depolymerization of ethylene depending on the monomer concentration and  $TiCl_4$  content in the  $TiCl_4-AlEt_2Cl$  catalyst (same journal 1963, 808). In the depolymerization process the chain rupture is accompanied by transmission processes. The purpose of this work was to calculate the reaction constants of these processes. At 30°C and with a  $TiCl_4$  concentration of 1 g/l (molar ratio of  $AlEt_2Cl:TiCl_4$  ranges from 0.6:1 to 1.6:1), spontaneous rupture is infinitesimal. Tests have shown that the ratio of rate constants for

Card 1/2

ACCESSION NR: AP4019018

the chain rupture in processes initiated by the monomer, by  $TiCl_4$ , and by  $AlEt_2Cl$ , as indicated by the changes of the molecular weight of the polymer depend on the molar ratio of titanium chloride to aluminum alkyl chloride chiefly because of the change in the nature of the catalytic centers rather than because of the chain rupture rate due to the components of the catalyst. The article contains detailed calculations of reaction constants - both polymerizing and depolymerizing. At adequate monomer pressures (1 atm and above) with proper concentrations of conventional catalysts, chain ruptures are much higher than that obtained with  $TiCl_4$  and  $AlEt_2Cl$ . Orig. art. has: OO.

ASSOCIATION: Institut khimicheskoy fiziki AN SSSR (Institute of Chemical Physics, AN SSSR)

SUBMITTED: 13Aug63

DATE ACQ: 27Mar64 ENCL: 00

SUB CODE: CH

NR REF SOV: 003 OTHER: 000

2/2

Card

TSVETKOV, V.I.; SHTUKINA, T.S.

Number of  $\delta$ -aquarides in 1962. Biul. VAGO no.34:45-46 '63.  
(MIRA 17:4)

1. Moskovskoye otdeleniye Vsesoyuznogo astronomicheskogo  
obshchestva.

MESHKOVA, I.N.; TSVETKOVA, V.I.; CHIRKOV, N.M.

Termination reaction of a polymeric chain in polymerization of  
ethylene on TiCl<sub>4</sub> AlEt<sub>3</sub> Cl. Izv.AN SSSR.Ser.khim. no.2:386-388  
(MIRA 17:3)  
F '64.

1. Institut khimicheskoy fiziki AN SSSR.

VARADI, Ye.; TSVETKOVA, V.I.; CHIRKOV, N.M.

Catalytically active particles in the  $TiCl_4$  -  $Et_2AlCl$  system  
during the polymerization of ethylene. Dokl. AN SSSR 152  
no.4:908-910 O '63. (MIRA 16:11)

1. Institut khimicheskoy fiziki AN SSSR. Predstavлено  
академиком Н.Н. Семеновым.

KISSIN, Yu.V.; TSVETKOVA, V.I.; CHIRKOV, N.M.

Determination of the degree of isotacticity of polypropylene from  
its infrared spectra. Dokl. AN SSSR 152 no.5:1162-1165 O '63.  
(MIRA 16:12)

1. Institut khimicheskoy fiziki AN SSSR. Predstavлено академиком  
N.N.Semenovym.

MESHKOVA, I.N.; TSVETKOVA, V.I.; CHIRKOV, N.M.

Chain termination reactions in the polymerization of ethylene  
on  $TiCl_4 \cdot AlR_2Cl$ . Izv.AN SSSR Otd.khim.nauk no.5:808-815  
Mys '63. (MIRA 16:8)

1. Institut khimicheskoy fiziki AN SSSR.  
(Ethylene) (Polymerization) (Catalysts)

MISHKOVA, I.N.; BELOV, G.P.; TSVETKOVA, V.I.; CHIRKOV, N.M.

Polymerization of ethylene under conditions of a staticnary action  
of heterogeneous complex catalysts. Plast.massy no.7:9-13 '63.

(Ethylene) (Polymerization) (Catalysts) (MIRA 16:8)

KISSIN, Yu.V.; BELOYE, G.P.; YEREMINA, I.V.; VELICHENKOVA, Ye.A.; TSVETKOV,  
V.I.; CHIRKOV, N.M.

Spectroscopic criterion of the isotacticity of polypropylene.  
Vyskom.sode. 5 no.7:1117 J1 '63. (AIKA 16:9)  
(Propylene—Spectra)

L 12584-63 EWP(j)/EPF(c)/EWT(m)/BDS ASD Pr-4/Pc-4 RM/WW  
ACCESSION NR: AP3003301 S/0191/63/000/007/0009/0013

AUTHORS: Meshkova, I. N.; Belov, G. P.; Tavetkova, V. I.; Chirkov, N. M. 66

TITLE: Polymerization of ethylene under stationary effect of heterogeneous complex catalysts

SOURCE: "Plasticheskiye massy", no. 7, 1963, 9-13

TOPIC TAGS: ethylene, TiCl<sub>4</sub>, AlEt<sub>3</sub>, propane, heptane

ABSTRACT: The kinetics of polymerization of ethylene was studied in the presence of TiCl<sub>4</sub>-Al<sub>2</sub>Bu<sub>3</sub>Cl and TiCl<sub>4</sub>-AlEt<sub>2</sub>Cl in propane with a monomer pressure of 4 to 5 atm., and in heptane at 150mm Hg. The catalysts were tested at various concentrations with molar ratios of Al : Ti starting from 0.65 to 3 : 1 at temperature interval between 30 to 500. The character of polymerization of ethylene in the propane media is the same as in other saturated hydrocarbons such as n-heptane. It was found that the conditions which form a stable catalytic system TiCl<sub>4</sub>-Al<sub>2</sub>Bu<sub>3</sub>Cl and TiCl<sub>4</sub>-AlEt<sub>2</sub>Cl are obtained with low concentrations of catalyst components. These stable concentrations are with molar ratios of Al to Ti of 1 : 1 or even lower. A possibility of obtaining high stationary speeds in the process is also shown. This enables to obtain the needed quantity of polymeric

Card 1/2

L 12584-63  
ACCESSION NR: AP3003301

product in a period of 2 to 4 hrs. using 0.4 to 0.7% of the total catalyst. The polyethylene obtained at stationary conditions with the  $TiCl_3$ - $Al(iBu)_2Cl$  system in propene, has a characteristic viscosity of 3.5 to 4.2 in  $100cm^3/g$ , with the rupture stress of 320 to 330  $Ig\ force/cm^2$  and relative elongation of 500-900%. Orig. art. has: 3 tables and 4 figures.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 30Jul63

ENCL: 00

SUB CODE: ML

NO REF Sov: 004

OTHER: 000

Card 2/2

ACCESSION NR: AP3000121

S/0062/63/000/005/0808/0815

AUTHOR: Meshkova, I. N.; Tsvetkova, V. I.; Chirkov, N. M.

TITLE: The chain-breaking reaction in polymerization of ethylene with TiCl sub 4 and AlR sub 2 Cl

SOURCE: AN SSSR. Izvestiya. Otdeleniya khimicheskikh nauk, no. 5, 1963, 808-815

TOPIC TAGS: polymerization, ethylene, kinetics, TiCl sub 4 — AlR sub 2 Cl

ABSTRACT: "The article is published in accordance with the decision of the Conference of Chief Editors of the Journals of the Academy of Sciences SSSR held in 1962, as the dissertation article of N. N. Meshkov." The authors studied the kinetics of ethylene polymerization and relationships between the molecular weight of the polymer and concentrations of monomer and catalysts. Polymerization was carried out at 30°C with molar ratios of AlR sub 2 Cl: TiCl sub 4 = 0.6:1-1.6:1 and ethylene pressures of 50-400 mm Hg. Forty-three milliliters of n-heptane was used as the solvent. The molecular weight of the polymer was calculated from measurements of its viscosity in tetrahydronaphthalene at 130°C. It is concluded that under steady-state conditions the molecular weight of polyethylene does not depend upon the polymerization time. When the ethylene concentration is of the

Card 1/2

ACCESSION NR: AP3000121

order of  $10^{-2}$  M/l., the length of the chain is related to the ratio of the growth constant and the monomer concentration. The rate at which the chain is broken down into its components by the catalyst is commensurate with the breakdown into monomer only at lower ethylene concentrations. No appreciable spontaneous break-down of the chain occurred. With an increase in the molar ratios of the catalyst components, there was a sharp increase in the molecular weight of polyethylenes. This was due to changes in the kinetic properties of the catalyst complex and not to a decrease in the rate of chain breaking caused by  $TiCl_4$  as has been hypothesized by others. Orig. art. has: 3 tables, 4 figures.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics, Academy of Sciences SSSR)

SUBMITTED: 28Sep62

DATE ACQ: 12Jun63

ENCL: 00

SUB CODE: CH

NO REF Sov: 906

OTHER: 005

Card 2/2

S/190/62/004/012/007/015  
B101/B186

AUTHORS: Firsov, A. P., Sandomirskaya, N. D., Tsvetkova, V. I.,  
Chirkov, N. M.

TITLE: Kinetics and mechanism of  $\alpha$ -olefin polymerization on complex catalysts. VI. Polymerization of propylene in the presence of  $TiCl_3$  and  $Be(C_2H_5)_2$

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 12, 1962,  
1812-1816

TEXT: In continuation of a previous paper (Vysokomolek. soyed., 3, 1352, 1961) it has been found, with regard to propylene polymerization with  $TiCl_3 + Be(C_2H_5)_2$ , that the rate of polymerization does not depend on the ratio of the catalyst components or on the concentration of  $Be(C_2H_5)_2$ , provided that the reaction temperature is 30°C and propylene concentration is constant. The process of chain termination was now studied more closely by determining the dependence of the intrinsic viscosity  $[\eta]$  and the polymerization coefficient  $v$  on the test conditions.  $v$  is defined as being

Card 1/3

Kinetics and mechanism of...

S/190/62/C04/ 2/007/015  
B101/B186

equal to  $\bar{M}/42$  or  $\nu = 9.5 \cdot 10^2 [\eta]$ . The following data are given for the temperature dependence of  $[\eta]$  and  $\nu$ :

Temperature, $^{\circ}\text{C}$	30	60	70
$[\eta]$ , dl/g	4.70	3.15	1.90
$\nu$	4460	2990	1800

It was moreover found that  $1/\nu$  is a linear function of  $1/c_{\text{C}_3\text{H}_6}$ . The following data were found for the dependence of  $[\eta]$  and  $\nu$  on  $c_{\text{Be}(\text{C}_2\text{H}_5)_2}$  at  $30^{\circ}\text{C}$ :

$c_{\text{Be}(\text{C}_2\text{H}_5)_2} \cdot 10^2$ moles/liter:	1.33	3.46	17.3
$[\eta]$ , dl/g	7.9	7.00	4.5
$\nu$	7500	6650	4270

The evaluation of these data gives an activation energy for the termination by the monomer  $\text{C}_3\text{H}_6$  of 26.4 kcal/mole, i.e. 10.2 kcal/mole more than the activation energy for the chain growth. The activation energy for the

Card 2/3

Kinetics and mechanism of...

S/190/62/004/012/007/015  
B101/B186

termination by  $\text{Be}(\text{C}_2\text{H}_5)_2$  is 16 kcal/mole. The ratio  $k_{\text{term}}^{\text{Be}}/k_{\text{term}}^{\text{M}}$  is 10 at  $30^\circ\text{C}$ , but decreases with increasing temperature owing to the higher activation energy for the termination by the monomer. There are 3 figures and 1 table.

ASSOCIATION: Institut khimicheskoy fiziki AN SSSR (Institute of Chemical Physics IS USSR)

SUBMITTED: July 3, 1961

Card 3/3

MESHKOVA, I.N.; KUMAN'KOVA, S.A.; TSVETKOVA, V.I.; CHIRKOV, N.M.

Kinetics and mechanism of the polymerization of  $\alpha$ -olefins on complex catalysts. Part 5: Kinetics of ethylene polymerization on  $TiCl_4 - Al(iso-C_4H_9)_2Cl$ . Vysokom. soed. 3 no.12:1816-1822 D '61. (MIRA 15:3)

1. Institut khimicheskoy fiziki AN SSSR.  
(Ethylene) (Polymerization) (Catalysts)

TSVETKOV, V.I.; FIRSOV, A.P.; CHIRKOV, N.M.

Possibility of determining elementary act constants in catalytic  
polymerization. Dokl. AN SSSR 142 no.1:149-151 Ja '62.  
(MIRA 14:12)

1. Predstavлено академиком В.Н. Кондрат'евым.  
(Polymerization) (Catalysis)

MESHKOVA, I.N.; BAKOVA, G.M.; TSVETKOVA, V.I.; CHIRKOV, N.M.

Kinetics and mechanism of the polymerization of  $\alpha$ -olefins  
on complex catalysts. Part 5: Polymerization kinetics of  
ethylene on the catalyst system  $TiCl_4 + Al(C_2H_5)_3$ . (MIRA 14:9)  
Vysokom.sosed. 3 no.10:1516-1523 0 '61.

1. Institut khimicheskoy fiziki AN SSSR.  
(Ethylene) (Polymerization)

VARADI, Jozsef; TSVETKOVA, V.J.; CSIRKOV, N.M. [Chirkov, N.M.]

Examination of  $TiCl_4-Et_2AlCl$  catalysts and determination of the catalytic activity of the developing products in the polymerization of ethylene. Pt. 1. Magy kem folyoir 70 no. 6:264-266 Je '64.

1. Research Institute of the Plastics Industry, Budapest (for Varadi). 2. Institute of Chemicophysics, Academy of Sciences of the U.S.S.R. Moscow (for Tsvetkova and Chirkov)..

ACC NR: AP6027295

SOURCE CODE: UR/0133/66/000/008/0738/0741

AUTHOR: Tsvetkova, V. E.; Khatalakh, R. F.

ORG: "Elektrostal'" Plant (Zavod "Elektrostal'")

TITLE: Effect which the addition of molybdenum, tungsten and other elements has on the properties and structure of heat resistant nickel alloy in the cast state

SOURCE: Stal', no. 8, 1966, 738-741

TOPIC TAGS: nickel alloy, metal crystallization, mechanical property, molybdenum containing alloy, tungsten containing alloy

ABSTRACT: The authors study the effect of introducing molybdenum, tungsten and other elements on the properties and structure of 7 compositions of KhN66VMTYu heat resistant nickel alloys in the cast state. It was found that liquidus and solidus temperatures rise as tungsten content is increased in these alloys. Increasing molybdenum content from 5 to 10% has no affect on the critical crystallization point of KhN66VMTYu alloy. The use of iron instead of nickel lowers the liquidus temperature and reduces the crystallization interval. Increasing the degree of alloying for this type of alloy forms internal cracks throughout the bottom part of the ingots during cooling in air. Impact strength and mechanical properties of the cast structure are reduced during hot plastic deformation if the weight of the ingots is increased from

Card 1/2

UDC: 669.14.018.45

ACC NR: AP6027295

210 to 500 kg. However, regardless of ingot size, the impact strength of specimens taken from the acicular crystal zone is higher than that of specimens from the uniaxial crystal zone by a factor of 1.5-2. The maximum impact strength approaches that observed in specimens of deformed metal cut along the acicular crystals. The breaking strength and ductility characteristics of the various crystal zones behave similarly as the temperature is raised from 800 to 1250°C: the breaking strength decreases uniformly, and the relative elongation and constriction reach a maximum at 1000-1150°C. Orig. art. has: 5 figures, 1 table.

SUB CODE: 11/ SUBM DATE: None/ ORIG REF: 002

Card 2/2

L 4177-66 EWT(n)/EWP(e)/EWP(1)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(s)/EWP(b)/EWA(c)	
ACC NR: AP5024405JD/HK/HW/JG	SOURCE CODE: UR/0286/65/000/015/0083/0083 <i>164</i>
INVENTOR: Estulin, G. V.; Zimina, L. N.; Kosheleva, G. P.; Topilin, V. V.; Boyarinova, A. P.; Tsvetkova, V. K.; Chatalakh, R. F.; Shnyakin, N. B.; Polyakov, K. M.; Mel'nikov, M. V.; Belyakova, A. A.; Il'in, A. A.; Morozov, B. S.; Logdanovskiy, B. P.; Khrakovskaya, P. S.	
ORG: none	
TITLE: Wrought, heat-resistant, nickel-base alloy. Class 40, No. 173418 [announced by Central Scientific Research Institute of Ferrous Metallurgy im. Bardina (Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii); z-d "Elektrostal'" im. I. F. Tevosyan]	
SOURCE: Byulleten' izobreteni i tovarnykh znakov, no. 15, 1965, 83	
TOPIC TAGS: alloy, nickel alloy, chromium containing alloy, molybdenum containing alloy, tungsten containing alloy, titanium containing alloy, aluminum containing alloy, carbon containing alloy, beryllium containing alloy, cerium containing alloy	
ABSTRACT: This Author Certificate introduces a wrought, heat-resistant, nickel-base alloy with improved mechanical properties and weldability. The alloy contains 17 to 20% chromium, 8-12% molybdenum, 0-6% tungsten, 2-3% titanium, 1-2% aluminum, 0.1% max carbon, 6% max iron, 0.01% max sulfur, 0.015 max phosphorus, 0.5% max manganese, 0.6% max silicon, 0.01% max boron, and 0.02% max cerium. [AZ]	
SUB CODE: MM. SUBM DATE: 05Feb64/ ORIG REF: 000/ OTH REF: 000/ ATD PRESS: 4128	
Cont 1/1 rec UDC: 669.243	

SNARSKIY, A.N., prof. (L'vov); IBAD-ZADE, Yu.A., prof. (Baku);  
TSVETKOVA, V.P., kand.biolog.nauk (Obninsk)

News, events and facts. Priroda 51 no.11:110-111 N '62.  
(MIRA 15:11)

(Science news)

TSVETKOVA, V.P.

~~Biology of the termite Reticulitermes luciphagus Fossi (Isoptera).~~  
~~Ent. oboz. 33:132-141 '53.~~  
(MLRA 7:5)

1. Kafedra zoologii i entomologii Odesskogo sel'skokhozyaystvennogo  
instituta. (Termites)

MOISEYEV, I.V.; BORODINA, N.N.; TSVETKOVA, V.T.

Some physiochemical properties of plutonium cupferronate. Zhur.  
neorg. khim. 6 no.3:543-548 Mr '61. (MIRA 14:3)  
(Plutonium compounds)

ACC NR: AP6028188

SOURCE CODE: UR/0032/66/032/006/0654/0657

AUTHOR: Yelinson, S. V.; Savvin, S. B.; Dedkov, Yu. M.; Tsvetkova, V. T.

ORG: none

TITLE: Photometric and differential-spectrophotometric determination of niobium in alloys with R-picramine

SOURCE: Zavodskaya laboratoriya, v. 32, no. 6, 1966, 654-657

TOPIC TAGS: quantitative analysis, niobium, spectrophotometric analysis

ABSTRACT: The article reports an investigation of the formation of complexes between niobium and R-picramine. The reagent reacts with niobium in a ratio of 1:1, and the molar coefficient of light extinction is approximately 11,000. The article describes a photometric method for determining niobium in molybdenum, tungsten, uranium, titanium, tin, and aluminum base alloys. The method permits determination of amounts from 0.1% with a relative accuracy of  $\pm 10\%$ . A curve shows the optical density as a function of the acidity of the solution. The second part of the article describes a differential spectrophotometric method for determining niobium in alloys and intermetallic compounds with tin. The method permits determination of  $> 70\%$  Nb with a relative accuracy of 1.5%. Experimental data are exhibited in tabular form. Orig. art. has: 3 figures and 3 tables.

SUB CODE: 07, 11, 20 / SUBM DATE: none / ORIG REF: 006  
Card 11

UDC: 543.7

89901

S/078/61/006/003/006/022  
B121/B208

21.3/00

AUTHORS:

Moiseyev, I. V., Borodina, N. N., Savetkova, V. T.

TITLE:

Investigation of some physico-chemical properties of plutonium cupferranate

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 6, no. 3, 1961, 543-548

TEXT: The authors studied the composition, solubility, and extraction of the reaction products of tri-, tetra-, and hexavalent plutonium with cupferron, since no data are available on their physico-chemical properties. The composition of the precipitate in the precipitation of plutonium with cupferron was always found to correspond to tetravalent plutonium, irrespective of the plutonium valence in the initial solution. The composition of plutonium(IV) cupferronate was determined by potentiometric titration of sulfuric acid solutions of tetravalent plutonium with cupferron solutions. When precipitating trivalent plutonium with cupferron, the latter is not consumed by oxidation, but the plutonium(III) ion is oxidized in the solution and then forms the stable complex compound  $\text{Pu}(\text{C}_6\text{H}_5\text{N}_2\text{O}_2)_4$  in the presence of cupferron. Precipitation of tri-

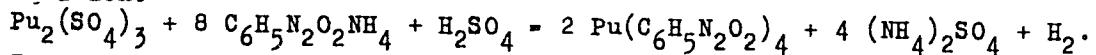
Card 1/3

Investigation of some...

89901  
S/078/61/006/003/006/022  
B121/B208

X

valent plutonium with cupferron takes place according to the following equation:



In the precipitation of hexavalent plutonium with cupferron in acid solutions, plutonium(VI) is reduced to plutonium(IV) which is precipitated as  $\text{Pu}(\text{C}_6\text{H}_5\text{N}_2\text{O}_2)_4$ . The solubility of plutonium cupferronate was determined by the method of I. V. Pyatnitskiy (Ref. 6):

$$K_p = \frac{[\text{H}^+]^4}{[\text{Pu}^{\text{IV}}][\text{HR}]^4} = 6.6 \cdot 10^{13}$$

$$L_p = [\text{Pu}^{\text{IV}}][\text{R}^-]^4 = 1.2 \cdot 10^{-31}.$$

It was found in numerous experiments that the precipitation of plutonium cupferronate from 1.5 - 3 M sulfuric acid solutions in the presence of 2.5 - 3.5 mg/ml of excess cupferron gives rise to a complete plutonium separation from equimolecular quantities of uranium, chromium, manganese, aluminum, silver, nickel, and lanthanum. Also a quantitative separation of plutonium from americium is achieved under equal conditions. The

Card 2/3

89901

Investigation of some...

S/078/61/006/003/006/022  
B121/B208

extraction of plutonium(IV) cupferronate from sulfuric acid solutions with chloroform was studied. The composition of the extractable complex is  $\text{Pu}(\text{C}_6\text{H}_5\text{N}_2\text{O}_2)_4$ . Extraction of trivalent plutonium by chloroform from sulfuric and nitric acid solutions in the presence of cupferron also takes place in the form of  $\text{Pu}(\text{C}_6\text{H}_5\text{N}_2\text{O}_2)_4$ . Plutonium(IV) cupferronate is less extracted with  $\text{CCl}_4$  than with  $\text{CHCl}_3$ . At  $20 \pm 1^\circ\text{C}$ , the following equation holds for the constant  $K_{\text{eq}}$  in the system  $\text{PuR}_4 - \text{HR} - \text{CHCl}_3$ :

$$K_{\text{eq}} = \frac{[\text{PuR}_4]_{\text{CHCl}_3}}{[\text{Pu}^{\text{IV}}]_{\text{H}_2\text{O}}} \cdot \frac{[\text{H}^+]^4}{[\text{HR}]^4_{\text{CHCl}_3}} = 1.1 \cdot 10^7.$$

There are 2 figures, 2 tables, and 8 references: 7 Soviet-bloc and 1 non-Soviet-bloc.

SUBMITTED: July 20, 1960

Card 3/3

TSVETOVA, V.V., inzhener-gidroprognozist

Ice jams in the upper course of the Amur River in the spring of 1960.  
~~Amur~~ sbor. no.2:101-105 '60. (MIRA 15:3)

1. Deystvitel'nyy chlen Geograficheskogo obshchestva SSSR.  
(Amur River--Ice on rivers, lakes, etc.)

KHARKHAROV, A.A.; TSVETKOVA, V.V.

Review of the preparation and dyeing methods of "vinol"  
polyvinylalcohol fibers. Izv.vys.ucheb.zav.; tekhn.tekst.  
prom. no.5:150-152 '61. (MIRA 14:11)

1. Leningradskiy tekstil'nyy institut imeni S.M. Kirova.  
(Dyes and dyeing--Textile fibers, Synthetic)

KHARKHAROV, A.A.; TSVERKOVA, V.V.

Mechanism of the dyeing of polyvinyl alcohol fibers with  
dispersed dyes. Izv.vys.ucheb.zav.; tekhn.tekst.prom.  
no.2:112-118 '63. (MIRA 16:6)

1. Leningradskiy tekstil'nyy institut imeni S.M.Kirova.  
(Dyes and dyeing--Textile fibers, Synthetic)

KHARKHAROV, A.A., prof.; TSVETKOVA, V.V., nauchnyy sotrudnik

Dyeing of "vinol" blended with cellulose fibers. Tekst. prom.  
(MIRA 18:5)  
25 no.4:49-51 Ap '65.

1. Leningradskiy institut tekstil'noy i legkoy promyshlennosti.

TSVETNOV, V.V. & KARANDASOV, V.I.

Fluctuation errors of correlation measuring devices. Radiotekhnika  
20 no. 7 1976. p. 165. (MIRA 18:8)

TSAVETKOVA, V.V. [TSievtkova, V.V.]

Reaction of the islands of Langerhans in case of a radiation syndrome.  
Fiziol. zhur. [Ukr.] 7 no.1:76-82 Ja-F '61. (MIRA 14:1)

1. Department of Roentgenology and Radiology of the Kharkov Medical  
Institute  
(PANCREAS) (X RAYS—PHYSIOLOGICAL EFFECT)

TSVETKOVA, V.V., assistent

Effect of X-ray irradiation on the content of sugar in the blood.  
Trudy Khar. med. inst. no.50:386-389 '62.

(MIRA 19:1)

1. Kafedra rentgenologii i radiologii (zav. prof. G.A. Burlachenko)  
i otdel gistofiziologii (zav. zasluzhennyy deyatel' nauk prof.  
B.V. Aleshin) Ukrainskogo instituta eksperimental'noy endokrinologii.

BRESLAVSKIY, A.S.; TSVETKOVA, V.V.

Reaction of the insular apparatus of the pancreas to irradiation  
with X rays. Trudy Ukr.nauch.-issl.inst.eksper.endek. 18:196-  
201 '61. (MIRA 16:1)

1. Iz otdela gistogramiologii Ukrainskogo instituta eksperimental'noy endokrinologii i kafedry rentgenologii Khar'kovskogo meditsinskogo instituta.  
(PANCREAS) (X RAYS---PHYSIOLOGICAL EFFECT)

KHARKHAROV, A.A.; TSVETKOVA, V.V.

Dyeing of synthetic fibers. Izv. vys. ucheb. zav.; tekhn. tekst.  
prom. no.3:115-119 '62. (MIRA 17:10)

1. Leningradskiy tekstil'nyy institut imeni Kirova.

OLIGER, Ivan Mikhaylovich; TSVETKOVA, Ye.A., redaktor; MAKHOVA, N.N.  
tekhnicheskiy redaktor.

[Concise guide to vertebrates] Kratkii opredelitel' pzyonochnykh.  
Moskva, Gos. uchebno-pedagog. izd-vo Ministerstva prosveshcheniya  
RSFSR, 1955. 137 p. (MIRA 8:7)  
(Vertebrates)

TSVETKOVA, Ye.A.; KOTOVA, N.G.; TUNIK, B.A.; VENGRINOVICH, L.S.;  
MOCHALOVA, R.M.

[Catalogue of publications received between July 1 and December 31 1961] Katalog publikatsii, postupivshikh s 1 iulia po 31 dekabria 1961 g. Moskva, No.6. [Longitudes and latitudes. Seismology. Gravimetry. General section] Dolgoty i shiroty. Seismologija. Gravimetrija. 14 p. Obshchii razdel. 7 p. [Rockets and satellites] Rakety i sputniki. 56 p. II. [Meteorology. XIV. Nuclear radiation] Meteorologija. XIV. IAdernaja radiatsija. 22 p. III. [Geomagnetism. IV. Aurora. V. Ionosphere. VI. Solar activity. VII. Cosmic rays] Geomagnetizm. IV. Po-liarnye siianija. V. Ionosfera. VI. Solnechnaja aktivnost'. VII. Kosmicheskie luchi. 62 p. IX. [Glaciology. X. Oceanography] Glaciologija. X. Okeanografija. 22 p. (MIA 16:6)

1. Mirovoy tsentr dannykh MCG B. 2. Nauchno-issledovatel'skiy institut aeroklimatologii (for all).  
(Bibliography--Geophysics)

TSVETKOVA, Ye.A.; KOTOVA, N.G.; TUNIK, B.A.; VENGRINOVICH, L.S.;  
NIKOLAYEVA, A.A.

[Catalogue of publications received by the World Data Center B  
between January and June 1962] Katalog publikatsii, postupiv-  
shikh v MTsD B s ianvaria po iyun' 1962 g. Moskva, No.7. [General  
section] Obshchii razdel 5 p. II [Meteorology. XIV. Nuclear  
radiation] Meteorologiya. XIV. IAdernaia radiatsiia. 18 p.  
(MIRA 16:6)

1. Mirovoy tsentr dannykh MGG-B.  
(Bibliography--Geophysics)

KOZHEVNIKOVA, Nina Georgiyevna; TSVETKOVA, Ye.A., red.; SHCHEGOLEVA,  
T.A., tekhn. red.

[Feeding of children in the kindergarten] Pitanie detei v detskom  
sadu; iz opyta raboty detskogo sada No.617 g. Moskvy. Moskva,  
Gos. uchebno-pedagog. izd-vo M-va prosv. RSFSR, 1961. 274 p.  
(MIRA 14:8)

(SCHOOL CHILDREN--FOOD)

TRAVKIN, Mikhail Prokhorovich; TSVETKOVA, Ye.A., red.; KREYS, I.O.,  
tekhn.red.

[Entertaining experiments with plants] Zanimatel'nye opyty  
s rasteniami. Moskva, Gos.uchebno-pedagog.izd-vo M-va prosv.  
RSFSR, 1960. 122 p.  
(Botany--Experiments)

USVATSKAYA, Al'bina Vladislavovna; TSVETKOVA, Ye.A., red.; KORNEYEVA,  
V.I., tekhn.red.

[Study of house plants in the lower grades; manual for teachers  
of primary grades] Izuchenie komnatnykh rastenii v mладших  
klassakh; posobie dlia uchitelei nachal'nykh klassov. Moskva,  
Gos.uchebno-pedagog.izd-vo M-va prosv.RSFSR, 1960. 76 p.  
(MIRA 13:11)

(House plants--Study and teaching)

GRINOVICH, Yevgeniy Nikolayevich; TSVETKOVA, Ye.A., red.; TATURA, G.L.,  
tekhn. red.

[Stories on animal life] Ocherki o zhizni zverei. Moskva,  
Gos.uchebno-pedagog.izd-vo M-va prosv.RSFSR, 1961. 214 p.  
(MIRA 15:2)

(Animals, Habit and behavior of)

MANTEYFEL', Petr Aleksandrovich, uchitel'-naturalist; TSVETKOVA, Ye.A.,  
red.; MAKHOVA, N.N., tekhn. red.

[Notes of a naturalist] Zametki naturalista. Moskva, Gos.uchebno-  
pedagog.izd-vo M-va prosv.RSFSR, 1961. 190 p. (MIRA 14:12)  
(Nature study)

TSVETKOVA, Ye.I., kand. med. nauk

Blood coagulation changes in thoracic injuries and following  
vago-sympathetic blocks. Sov. Med. 26 no.9:70-76 S '62.  
(MIHA 17:4)

1. Iz kafodry gospital'noy khirurgii Omskogo meditsinskogo  
instituta imeni M.I. Kalinina (zav. - prof. G.D. Shushkov).

TBILIKOVA, Ye. I.

"Changes in the Mechanism of Respiration and Coagulability of the Blood During Traumas of the Thoracic Cavity (Clinical Experimental Investigation)" Cand Med Sci, Omsk State Medical Inst imeni M.I. Kalinin, Omsk, 1955. (KL, № 14, Apr 55)

SO: Sum.№ 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations  
Defended at USSR Higher Educational Institutions (16).

TSVETKOVÁ, Ye. M.

"The Activity of Preparations for the Diagnosis of Tularaemia." Zhurn. Mikrobiol.,  
Epidemiol. i Immunobiol. 1948, No. 10

"APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001757220017-9

TSVETKOVA, Ye. M. and KHATENEVER, L. M.

"Modification of the Virulence of *B. tularensis* resulting from Cultivation  
on Coagulated Egg-Yolk Medium." Zhur. Mikrob., Epid. i Immun. (2):5-8, 1949.

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001757220017-9"

Jun 53

TSVETKOVA, YE. M.

USSR/Medicine - Tularemia

"Mechanism of the Therapeutic Action of Streptomycin in Experimental Tularemia of Guinea Pigs," Ye. M. Tsvetkova, Tularemia Lab, Div of Parasitol and Med Zool, Inst Epidemiol, Acad Med Sci, USSR

Zhur Mikro, Epid, i Immun, No 6, pp 34-40

Streptomycin is effective in the treatment of guinea pigs infected with tularemia by inhalation, intraocularly, or intracutaneously. When *B. tularensis* are cultivated on artificial media contg streptomycin, streptomycin-resistant strains develop.

Trans- M-152, 7 Feb 55

267T16

TSVETKOVA, Ye. M.  
USSR/Medicine - Tularemia, immunology

FD-2601

Card 1/1      Pub. 148 - 12/25

Author : Olsuf'yev, N. G.; \*Borodin, V. P.; Surnina, N. S.; and Tsvetkova,  
Ye. M.

Title : The allergenic characteristics of tulyarin from virulent, vaccine,  
and avirulent strains of tularemia microorganisms when administered  
supracutaneously and intracutaneously

Periodical : Zhur. mikro. epid. i immun. 4, 58-63, Apr 1955

Abstract : The allergenic characteristics of tulyarin produced from virulent  
and vaccine strains were found to be identical. Persons with an  
active immunity or who had recovered from tularemia could be de-  
tected by the allergic reaction following the supracutaneous or  
intracutaneous administration of diluted tulyarin. The authors  
recommend the supracutaneous application of vaccine strain tulyarin  
to the forearm. The results of the experiments are presented on two  
charts. No references are cited.

Institution : Institute of Epidemiology and Microbiology imeni Gamaleya; Stalin-  
gradskaya Oblast Antitularemia Station (Chief Physician - V. P.  
Borodin); and the Stalingrad Sanitary-Epidemiological Station  
(Head - N. I. Makarov)

Submitted : October 18, 1954

BORODIN, V. P., SURNINA, N. S., TSVETKOVA, YE. M., OLSUF'YEV, N. G.

"Allergy Characteristics of Tularin Derived From Virulent Vaccines and Avirulent Strains of Tularemia Microbes on Cutaneous and Substaneous Use." Proceedings of Inst. Epidem and Microbiol. im. Gamaleya 1954-56.

Division of Parasitology and Medical Zoology, Pavlovskiy, Yevgeniy Nikonorovich, Active Member of Academy of Medical Sciences, USSR, head.  
~~Inst. Epidem and Microbiol. im. Gamaleya AME USSR.~~

SO: Sum 1186, 11 Jan 57.

TSVETKOVA, Ye. M.

U-7

USSR / Pharmacology, Toxicology. Chemotherapeutic Agents

Abs Jour : Ref. Zh. Biol., No 2, 1958, No 8100

Author : Olsufyev, N.G., Tsvetkova, Ye. M.

Inst :

Title : The Therapeutic Effect of Streptomycin and Other  
Antibiotics in Tularemia

Orig Pub : V. sb. Antibiotiki. Experim. Klinich. Izuch. M. 1956,  
173-179

Abstract : Out of a number of antibiotics which were effective in  
the treatment of tularemia in vitro, streptomycin proved  
to be the most efficacious in therapy of the experimental  
tularemia in guinea pigs. Biomycin and terramycin were  
less effective. Levomycin, sintomycin, ftiazid and  
PAS had no therapeutic value. Sulfate and chlorhydrate

Card : 1/2

USSR / Pharmacology, Toxicology, Chemotherapeutic Agents

U-7

Abs Jour : Ref. Zh. Biol., No 2, 1958, No 8100

Abstract : of streptomycin, as well as the calcium chloride complex, had a similar curative action. Efficacy of streptomycin did not depend upon the route of infection (by aspiration, ocular, intracutaneous, subcutaneous or alimentary). It was demonstrated that streptomycin had only a bacteriostatic effect on the causative agent of tularemia, the elimination of which was achieved by the protective mechanisms of the body. Introduction of streptomycin did not interfere with formation of immunity. Clinical observations have confirmed a high therapeutic effectiveness of streptomycin (5-7 or more units during a course of treatment) in tularemia, especially in its ulceroglandular and pulmonary forms.

Card : 2/2

OISUF'YEV, N.G.; TSVETKOV, Ye.M.; BORODIN, V.P.; KOROLEVA, A.P.; SIL'CHENKO,  
V.S.; KHOROSHEV, I.G.; MYASNIKOV, Yu.A.; PERFIL'YEVA, Z.A.; KRATOKHILL'  
N.I.; VAYSTIKH, M.A.; RAVDONIKAS, O.V.; BARANOVA, N.K.; ZIMINA, V.Ye.;  
TOMASOVA, L.N.; USTIN-PETHOVA, T.F.; AREF'YEV, S.S.; KOKINA, N.S.;  
KUL'BA, A.P.; MAL'TSEVA, N.K.; SHELANOVA, G.M.; SORINA, A.M.; BRA-  
NITSKAYA, V.S.; PRUDNIKOVA, M.N.

Tularin from a vaccinal strain for epicutaneous use. Zhur. mikro-  
biol.epid. i immun. 27 no.9:22-28 S '56. (MLRA 9:10)

1. Iz Instituta epidemiologii i mikrobiologii im. N.P.Gamelei AMN  
SSSR i protivotuliaremiynykh stantsiy Stalingradskoy, Voronezhskoy,  
Tul'skoy, Plavskoy, Omskoy, Krasnodarskoy, Moskovskoy i Smolenskoy.  
(TULAREMIA, diagnosis,  
tularin epicutaneous test (Rus))

TSVETKOVA, Ye. M.  
OLSUF'YEV, N.O.; DUNAYEVA, T.N.; TSVETKOVA, Ye. M.

Certain aspects of immunity in tularemia. Zhur.mikrobiol.epid. i  
(MIRA 10:10)  
immun. 28 no.6:13-15 Je '57.

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei  
AMN SSSR.  
(TULAREMIA, immunology.  
(Eng))

L 31224-66 EWT(1)/T JK  
ACC NR: AP6022836

SOURCE CODE: UR/0297/66/011/003/0253/0257  
27  
B

AUTHOR: Tsvetkova, Ye. M.

ORG: Laboratory of Tularemia headed by Corresponding Member AMN SSSR, Professor N. G. Olsuf'yev, Institute of Epidemiology and Microbiology im. N. F. Gamaleya, AMN SSSR, Moscow (Laboratoriya tulyaremi Institutu epidemiologii i mikrobiologii AMN SSSR)

TITLE: Dynamics of the bacteriological process in the treatment of experimental tularemia with kanamycin, chlortetracycline, and streptomycin.

SOURCE: Antibiotiki, v. 11, no. 3, 1966, 253-257

TOPIC TAGS: tularemia, experiment animal, streptomycin, bacteriology, drug treatment, blood, bacteria, animal disease therapeutics, antibiotic

ABSTRACT: The author studied the dynamics of the bacteriological process in tularemia in guinea pigs against a background of the treatment of these animals with kanamycin, chlortetracycline, and streptomycin, of Soviet manufacture. The animals were infected subcutaneously with full virulent tularemia strain No 503, retrained in the laboratory by passages through guinea pigs. The dosage used in infection was 100 Dclm. Two to four guinea pigs were sacrificed after certain periods, and the regional lymph nodes, spleen, and blood were examined. In the treatment of animals with kanamycin

UDC: 616.981.455-085.779.9317-036-078  
0915 0820

Card 1/2

L 31224-66

ACC NR: AP6022836

and chlortetracycline, the bacterial count in tissues was determined by bacteriological and biological methods, and in the streptomycin treatment -- by bacteriological. The control consisted of 18 untreated guinea pigs infected in the same manner as the other animals. Two control guinea pigs which were sacrificed after certain periods (4, 6, 7, and 8 days) following infection, and regional lymph nodes, spleen, and blood were examined. Tularemia bacteria in counts from 1,000 to 10,000,000 microbial cells per gram of tissue and individual microbial cells in one ml of whole blood were detected in the regional lymph nodes and spleen of guinea pigs sacrificed after 4 days. Usually in the first days following the end of the course of treatment, no tularemia bacteria was found in animal organs, but in some of the cases a relapse of the disease accompanied by a minor increase in bacteria count in organs was noted in guinea pigs. The best results in guinea pig treatment were obtained in experiments with kanamycin and streptomycin. The weaker therapeutic effect of chlortetracycline is due to the inadequacy of the preparation dosage used, because of its toxicity to guinea pigs. Orig. art. has 1 figure. [JPRS]

SUB CODE: 06 / SUBM DATE: 25Jun65 / ORIG REF: 002

Card 2/2 Blc

TSVETKOVА, Ya. M.; TSAREVA, S. A.

Effect of chlortetracycline on the dormant cells of *influenzae* microbes.  
Antibiotiki 9 nc, 3:225-257 Mr '64. (MIRA 17112)

1. Laboratoriya t'lyaremii (zav. - chlen-korrespondent AMN SSSR prof. N. G. Olsuf'yev) o'dela bblezney s prirodnoy ochagovost'yu Instituta epidemiologii i mikrobiologii imeni N. F. Gamalei, Moskva.

TSVETKOVA, Ye.M.

Therapeutic effectiveness of framycin in experimental tularemia. Antibiotiki 8 no.2:152-153 F'63. (MIRA 16:7)

1. Laboratoriya tularemii (zav. - chlen-korrespondent AMN SSSR prof. N.G. Olsuf'yev) ot dela bolezney s prirodnoy ochagovost'yu (zav. - chlen-korrespondent AMN SSSR prof. P.A. Petrishcheva) Instituta epidemiologii i mikrobiologii imeni N.F. Gamalei AMN SSSR.

(NEOMYCINS) (TULAREMIA)

KRUGLOV, V.I., dots.; NARINSKIY, A.S., starshiy prepodavatel';  
RUBINOV, M.Z., dots.; TSVETKOVA, Ye.M., prepodavatel';  
MAZURKEVICH, M., red. izd-va; TELEGINA, T., tekhn. red.

[Collected problems in accounting] Sbornik zadach po  
bukhgalterskomu uchetu. Moskva, Gosfinizdat, 1962. 262 p.  
(MIRA 15:9)

1. Leningradskiy finansovo-ekonomicheskiy institut (for  
Kruglov, Narinskiy, TSvetkova).  
(Accounting—Problems, exercises, etc.)

TSVETKOVA, Ye.M.

Use of antibiotics and their combinations in experimental mixed infections with tularemia and listeriosis. Antibiotiki 6 no.9:  
43-45 S '61. (MIRA 15:2)

1. Laboratoriya tulyaremii (zav. - chlen-korrespondent AMN SSSR prof. N.G.Olsuf'yev) ot dela bolezney s prirodnoy ochagovost'yu Instituta epidemiologii i mikrobiologii imeni N.F. Gamalei AMN SSSR.  
(ANTIBIOTICS) (TULAREMIA) (LISTERIOSIS)

TSVETKOVA, Ye.M.

Problem of the therapeutic effect of mycerin and levanycetin in experimental leptospirosis. Antibiotiki 6 no.3:231-233 Mr '61.  
(MIRA 14:5)

1. Laboratoriya tulyaremii (zav. - chlen-korrespondent AMN SSSR prof. N.G.Olsuf'yev) otdela bolezney s prirodnoy ochagovost'yu Instituta epidemiologii i mikrobiologii imeni N.F.Gamalei.  
(LEPTOSPIROSIS) (MYCERIN) (CHLOROMYCETIN)

TSVETKOWA, Ye.M.

Therapeutic effect of monomycin in experimental tularemia. Antibiotiki  
6 no.4:327-330 Ap '61. (MIRA 14:5)

1. Laboratoriya tulyaremii (zav. - chlen-korrespondent AMN SSSR  
prof. N.G.Olsuf'yev) otdela bolezney s prirodnoy ochagovost'yu  
Instituta epidemiologii i mikrobiologii imeni N.F. Gamalei AMN SSSR.  
(ANTIBIOTICS) (TULAREMIA)

TSVETKOVA, Ye.M.

Effect of antibiotics from the tetracycline series and of streptomycin and penicillin on experimental listeriosis. Antibiotiki 4 no.5:58-61 S-O '59. (MIRA 13:2)

1. Laboratoriya tularemii (zav. N.G. Olsuf'yev) otdela infektsiy i prirodnoy ochagovost'yu Instituta epidemiologii i mikrobiologii imeni N.F. Gamalei.

(LISTERIA INFECTIONS exper.)  
(TETRACYCLINE pharmacol.)  
(STREPTOMYCIN pharmacol.)  
(PENICILLIN pharmacol.)

TSVETKOVA, Ye.M.

Combined administration of streptomycin with other antibiotics  
in experimental tularemia. Antibiotiki 4 no.1:104-107 Ja-F  
'59. (MIRA 12:5)

1. Laboratoriya tulyaremii otdela prirodnoochagovykh infektsiy  
(zav. - chlen-korrespondent AMN SSSR prof. P.A.Petrishcheva)  
Instituta epidemiologii i mikrobiologii AMN SSSR imeni N.F.  
Gamalei.

(TULAREMIA, exper.  
eff. of streptomycin with other antibiotics  
(Rus))  
(ANTIBIOTICS, effects,  
on exper. tularemia, streptomycin with other  
antibiotics (Rus))

USSR/Microbiology. Hemoglobinophilic Bacteria  
Microbe of Tularemia

P-5

Abs Jour : Ref Zhur - Biol., No 14, 1953, No 62427

Author : Olsuf'yev N.G., Dunayeva T.N., Tsvetkova Ye.M.

Inst : -

Title : On Various Properties of Immunity in tularemia

Orig Pub : Zn. mikrobiol., epidemiol. i immunobiologii,  
1957, No 6, 13-15

Abstract : In 6 hours after infection of white rats subcutaneously with a fatal dose of virulent tularemia bacteria (TuB), streptomycin treatment was started, which lasted 10 days. Sixteen out of 20 rats got well, with 100% mortality of the control animals. Part of the rats were killed immediately at the end of treatment. In their organs TuB was not found; in the serum were found specific antibodies with an average titer of 1:220. Twenty-three days after the end of

Card : 1/3

USSR/Microbiology. Hemoglobinophilic Bacteria  
Microbes of Tularemia

F-5

Abs Jour : Ref Zhur - Biol., No 14, 1958, No 62427

treatment in the second group of the rats, the intensity of immunity was determined by way of infection with a fatal dose of a virulent strain culture, with the result that 7 out of 8 rats lived, with a 100% mortality in the control animals. The surviving rats were killed 1 month after the experiment on immunity; TuB was found in only 1 out of 7 rats by performing a biopsy in the regional lymph nodes. The average agglutination titer of the serum amounted to 1:60. In the second series of experiments, 50 rats were infected subcutaneously with a sublethal dose of TuB: 25 rats with a 1 million dose and 25 with 1000 microbe cells. Five rats died of the first dose, and of the second--not even one died. In 6 months, 10 rats in each group were killed; studies of their organs by performing biopsies

Card : 2/3

USSR/Microbiology. Hemoglobinophilic Bacteria  
Microbes of Tularemia

F-5

Abs Jour : Ref Zhur - Biol., No 14, 1958, No 52427

gave negative results in all cases. The remaining animals, in 6 mos. after the start of the experiment, were infected with a 1.5 billion dose of TuB (several fatal doses); as a result, 19 out of 20 rats lived. The authors arrived at the conclusion that purifying the rat organism of TuB does not lead to the disappearance of immunity, and the immunity in rats regularly passes from the infectious (non-sterile) phase to the post-infectious (sterile) one. -- A.S. Shevelov

Card : 3/3

28

YEL'KINA, G.M.; TSVETKOVA, Ye.P.; ZHUKOV, G.V.

Tertian malaria with prolonged incubation period in Samarkand. Med.  
paraz. i paraz. bol. no.4:350-351 O-D '54. (MLRA 8:2)

1. Iz Samarkandskoy gorodskoy protivomalyariynoy stantsii.  
(MALARIA, epidemiology,  
in Russia, tertian malaria with prolonged incubation  
period)

SHVARTS, D.A., inzh.; TSVETKOVA, Ye.N., inzh.

Surface cracking during the hardening of 45 steel products.  
Metalloved. i term. obr. met. no.1:54-56 Ja '63. (MIRA 16:2)

1. Gor'kovskiy zavod frezernykh stankov.  
(Steel—Hardening) (Thermal stresses)

TSVETKOVA, Y~~E~~. S.

6707. Antonovskiy, S. D. i Tsvetkova, Y. E. S. Khimiya drevesiny i Tsellyulozy s osnorami anatomii i Fiziologii rasteniy. Metod. Ukaraniya dlya studentov Khim.-Tekhnol. Fad. L., 1954. 37s. 20sm. (M-vo vyssh. obrazovaniya SSSR. Vsesoyuz. Zaoch. Lesotekhn. in-t). 250 ekz. Bespl.- (55-1712)p 361.71 (071.4)

SO: Knizhnaya Letopis' No. 6, 1955

AUTHORS: Petrova, A. A., Tsvetkova, Ye. V., Gorshunova, V. M. S07/48-23-6-5/28

TITLE: Electron-microscopical Investigations of Finely Dispersed Iron Carbonyl (Elektronnomikroskopicheskoye issledovaniye tonkodispersnogo karbonil'nogo zheleza) I. Elaboration of Methods (I.Razrabotka metodiki)

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 6, pp 687 - 689 (USSR)

ABSTRACT: Iron carbonyl must, when the conditions for the segregation of  $\text{Fe}(\text{CO})_5$  are investigated, be divided qualitatively into two different forms: 1) Filar powder. 2) Powder consisting of spherical iron carbonyl particles. In the present paper, the methods of investigation are worked out. The preparation of the samples is carried out in two parts: 1) winding and polishing of the sample. 2) Production of a replica. In the discussion of the first part, the dimensions of the sample, the polishing paste (aluminum oxide), and the etching acid are given. The latter is nitric acid diluted in alcohol. The replica is produced by means of a collodium solution in amyl acetate. In the course of the investigation, the following distinction is made between four

Card 1/2

*Electron-microscopical Investigations of Finely Dispersed SOV/48-23-6-5/28  
Iron Carbonyl. I. Elaboration of Methods*

different particles: 1) Those having a pure bulbous structure, 2) those having a disturbed bulbous structure, 3) bulbousless structure, and 4) fragment particles. Examples are given by 8 figures of the two different kinds of iron carbonyl and the four different kinds of structure. There are 4 figures and 10 references, 6 of which are Soviet.

Card 2/2

"APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001757220017-9

PETROVA, A.A.; TSVETKOVA, Ye.V.; FRIDENBERG, A.E.; TOLMASSKIY, I.S.

Electron microscopy of the secondary structure of iron carbonyl. Zhur. fiz. khim. 36 no.3:613-615 Mr '62.  
(MIRA 17:8)

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001757220017-9"

TITLE: Some ternary compounds of the type .....

MATERIALS:

TOPIC TAGS: tetrahedral phase, ternary tetrahedral phase, zinc blende, concentration triangle, imperfect phase, perfect phase, semiconductor alloy, crystal structure, thiogermanium alloy, silver germanium

"APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001757220017-9

phosphide, copper arsenide, aluminum phosphide

**ABSTRACT:** Compounds of the type  $AIB_2IVC_3V$  were obtained by the component fusion method and subjected to X-ray and microstructural analysis for phase composition control. A table showing all the possible combinations of these substances is presented. The compound  $CuGe_2P_3$  crystallizes in a zinc blende structure with a parameter of  $a = 0.520 \text{ \AA}$ . Microhardness measurements revealed 3-5% of a second phase. Microhardness measurements were

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001757220017-9"

1 figure and 2 tables.

ASSOCIATION: Institut fiziki i matematiki, AN Mol. SSR (Institute of Physics and

SUBMITTED: 13 Dec 67

CLASSIFICATION: NOFORN

OTHER: M

REZNICHENKO, M.S., POLOTOVA, L.I., TSVETKOVA, Ye.V.

Nature of N-Terminal amino acid residues of wheat gliadin  
[with summary in English]. Biokhimiia 23 no.5:649-655 S-0 '58  
(MIRA 11:11)

1. Laboratoriya kafedry khimii Leningradskogo instituta  
sovetskoy torgovli.  
(GLIADIN)  
(AMINO ACIDS)

3-7-7/29

AUTHOR:

Tsvetkova, Ye.V.

TITLE:

Love for One's Profession (Lyubov' k svoyey professii)

PERIODICAL:

Vestnik Vysshey Shkoly, 1957, # 7, pp 28-32 (USSR)

ABSTRACT:

The author describes the educational work at the Moscow Library Institute, where specialists in library science, bibliography and cultural instructive work are trained. The author considers that this training cannot be completed within the limits of the teaching procedure, and that all sides of vuz life should be subject to educational treatment.

The Party, together with the Chair of Marxism-Leninism elaborated therefore a plan of political education, which provides the co-operation of the entire collective. Great importance is given to the Chair of Marxism-Leninism whose members act as agitators within the student groups, and have an active part in the social organizations of the institute. The author also states the necessity of a close connection between the teachers and the youth outside school. In this matter, Candidate of Philosophical Sciences, A.M. Zosulya, enjoys great authority.

The author then describes social events organized in the interest of developing a working class internationalism. He further states that in order to develop interest in their future

Card 1/2

Love for One's Profession

3-7-7/29

profession, the students must have a good knowledge of literature and for this purpose collective reviews of books should be organized. It is also necessary to develop the students' technical knowledge. A well known form of such education are films, the choice of which must be in accordance with a high moral and ideal quality.

The research of new educational methods has developed the connection between the institute's collective and cultural institutions. The students visit these organizations, and take part in the lectures, discussions, and concerts.

The author lists finally some deficiencies, as, for instance, the neglect of scientific work and independent creative activity, and lack of activity in scientific circles.

ASSOCIATION: The Moscow State Library Institute (Moskovskiy gosudarstvennyy bibliotekhnnyy institut)

AVAILABLE: Library of Congress

Card 2/2

DENISOVA, N.Ye.: TSVETKOVA, Ye.V.

Analysis of aluminum-antimony-gallium alloys. Zav.lab. 27  
no.6:656-657 '61. (MIRA 14:6)

1. Lenigradskiy fiziko-tehnicheskiy insitut AN SSSR.  
(Aluminum-antimony-gallium alloys)

TSVETKOVA, YE.V.

PETROVA, A.A. (Moskva); POCHTAREV, V.I. (Moskva); TSVETKOVA, Ye.V. (Moskva).

The preparation and use of carbon films in electron microscopy [with  
summary in English]. Zhur.fiz.khim. 31 no.2:372-376 F '57. (MLRA 10:7)  
(Electron microscopy) (Carbon)

Tsvetkova, Z.

Uchebnik Angliyskogo Yazyka (Textbook of the English Language) 2 Izd.,  
perer., by M. Galinskaya and Z. Tsvetkova. Moskva, Izd-Vo Lit-Py Na Inostrannikh Yazykakh, 1953.

431 P.

Text in Russian and English.

SO: N/5  
876.109  
•G12  
1953

CHERNITSYN, V.B.; TSVETKOVA, Z.A.

Two provinces of lead-zinc ores in Jurassic formations of the  
Greater Caucasus. Vest.Mosk.un.Ser.4: Geol. 15 no.3:37-45  
My-Je '60. (MIRA 13:8)

1. Kafedra poleznykh iskopayemykh Moskovskogo universiteta.  
(Caucasus--Ore deposits)

1. VYSOTSKIY, YE. A. and TSVETKOVA, Z. M.
2. USSR (600)
4. Lathes
7. Combination lathe for making outside and inside chamfers on tubes for pipeline installations. Vest. mash. 32 no. 8, 1952.
9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

S/074/62/031/011/001/001  
A057/A126

AUTHORS: Solovkin, A.S., Tsvetkova, Z.N.

TITLE: The chemistry of aqueous solutions of zirconium salts (Does there exist a zirconyl ion?)

PERIODICAL: Uspekhi khimii, v. 31, no. 11, 1962, 1,394 - 1,416

TEXT: A systematic survey of literature data referring to the chemistry of zirconium in aqueous solutions is given. In a subsequent discussion of the properties of aqueous and acidic solutions of zirconium salts (generally chlorides and nitrates) it is shown that the theory assuming the existence of a zirconyl ion is erroneous. The existence of zirconium trichloride cannot be explained, for instance, by this theory. The inaccuracy of the assumption of zirconyl and dizirconyl ions can be proved by the results given in several publications, by X-ray investigations of crystalline zirconium chloride and bromide samples and their solutions. Processes occurring during aging, or during heating of zirconium-salt solutions are explained by the authors according to the theory of Tomas cited by L. Pokras in J. Chem. Educ., v. 33, nos. 4, 5, 6 (1956), ✓

Card 1/3

S/074/62/031/011/001/001

A057/A126

The chemistry of aqueous solutions of ....

i.e., by hydrolysis and formation of hydroxyl, and/or oxide bridges (with simultaneous proton evolution) in the first stage of condensation ("olation"), and further dissociation (accompanied by proton evolution) ("olation"). In solutions containing 1 - 2M HClO<sub>4</sub>, at 25°C and a zirconium concentration of about 10<sup>-4</sup> to 0.02M the olation process occurs stepwise ending with the formation of the trimer [Zr<sub>3</sub>(OH)<sub>4</sub>]<sup>8+</sup> and tetramer [Zr<sub>4</sub>(OH)<sub>8</sub>]<sup>8+</sup>. The latter is the prevailing form of zirconium in its aqueous dichloride solutions at a 2M concentration. A transformation to the oxo-forms occurs in the absence of strong complexing agents. In solutions containing strong complexing agents there exists, apparently, only the monomolecular form of zirconium. The process does not end with the formation of the trimer and tetramer in weakly acidic solutions, but occurs continuously until polymers with a high molecular weight are forming. A change of the charge of the complex ions may occur in hydrochloric, nitric acid solutions, or after addition of neutral salts with the same anion. An inversion of the sign of the charge happens often in hydrosols of zirconium oxide, thus resulting in an "identification" of nonexisting zirconium complexes. The specific chemical behavior of zirconium and of processes which occur in solutions and in the solid phase have to be also considered in the preparative chemistry of

Card 2/3

The chemistry of aqueous solutions of ....

8/074/62/031/011/001/001  
A057/A126

zirconium compounds. Hence, the authenticity of analytical formulas for so many zirconium compounds with unusual composition (especially sulfates) have to be considered cautiously. Several data from articles published, after subject paper was concluded, are presented as an addition. These data are in good agreement with the conclusions presented in the present paper.

Card 3/3

SOLOVKIN, A.S.; TSVETKOVA, Z.M.; POVITSKIY, N.S.

Study of complex formation of zirconium with  $\alpha$ - and  $\beta$ -aminopropionic acids in nitric acid solutions by a method involving extraction.  
Zhur.neorg.khim. 7 no.4:937-939 Ap '62. (MIRA 15:4)  
(Zirconium compounds) (Propionic acid)

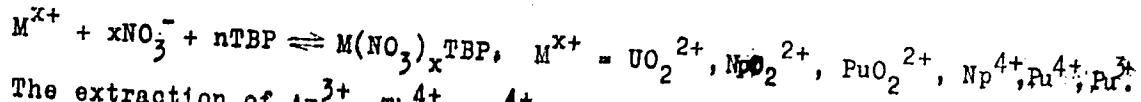
S/078/61/006/002/015/017  
B017/B054

AUTHORS: Tavetkova, Z. N., Solovkin, A. S., Povitskiy, N. S.,  
Davydov, I. P.

TITLE: Mechanism of Extraction of Zirconium Nitrate by Means of  
Tri-n-butyl Phosphate From High-acidity Solutions

PERIODICAL: Zhurnal neorganicheskoy khimii, 1961, Vol. 6, No. 2,  
pp. 489 - 492

TEXT: The distribution of many heavy metals between nitric acid solu-  
tions and tri-n-butyl phosphate (TBP) takes place according to the  
equation:



The extraction of Am<sup>3+</sup>, Th<sup>4+</sup>, Cr<sup>4+</sup> and the rare earths from highly con-  
centrated nitric acid solutions does not take place according to the  
above equation. The extraction coefficient grows with rising acidity of  
Card 1/3

Mechanism of Extraction of Zirconium  
Nitrate by Means of Tri-n-butyl Phosphate  
From High-acidity Solutions

S/078/61/006/002/015/017  
B017/B054

the solution. To explain the extraction mechanism of zirconium nitrate with tributyl phosphate from high-acidity solutions, the authors studied the effect of the hydrogen ion concentration on the extraction coefficient. The extractions were conducted by the method described by A. S. Solovkin (Ref. 3). Carbon tetrachloride was used as solvent for tributyl phosphate. The zirconium concentrations were determined with the aid of the radioactive isotope Zr<sup>95</sup>. Results are given in Figs. 1 and 2. The authors discussed the possibilities of increasing  $\alpha_{Zr}$  by changing the hydrogen ion concentration. It is assumed that the extraction of Zr(NO<sub>3</sub>)<sub>4</sub> with the organic phase occurs as Zr(NO<sub>3</sub>)<sub>4</sub> · 4(HNO<sub>3</sub>) · TBP and Zr(NO<sub>3</sub>)<sub>4</sub> · 2(HNO<sub>3</sub>) · TBP. Fig. 2 shows  $\alpha_{Zr}$  as a function of concentration. The presence of zirconium acidic complexes in the aqueous phase hardly influences the extraction coefficient. There are 2 figures, 2 tables, and 8 references: 6 Soviet and 2 US.

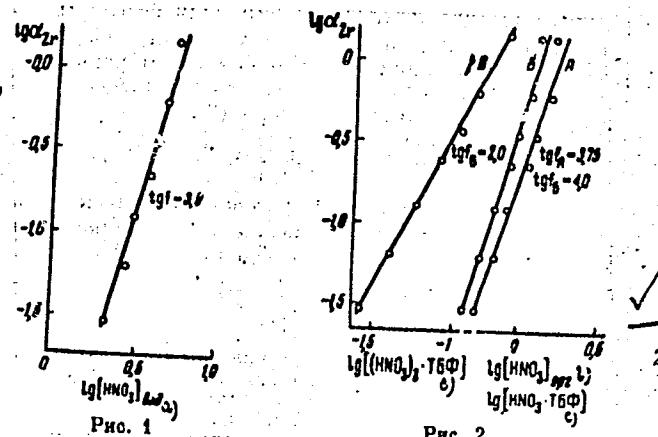
Card 2/3

5  
Mechanism of Extraction of Zirconium Nitrate  
by Means of Tri-n-butyl Phosphate From High-  
acidity Solutions

10  
S/078/61/006/002/015/017  
B017/B054

15  
SUBMITTED: January 20, 1960

20  
Legend to Figs. 1 and 2: a) water,  
b) organic, o) TBP



SHEVCHENKO, V.B.; POVITSKIY, N.S.; SOLOVKIN, A.S.; SHILIN, I.V.; LUNICHKINA,  
K.P.; TSVETKOVA, Z.N.

Extraction of nitric acid with tributylphosphate. Zhur. neorg. khim.  
3 no.9:2109-2112 S '58. (MIRA 11:10)  
(Nitric acid) (Phosphates) (Extraction (Chemistry))

TOVETKOVA, Z.N.

## AUTHORS:

Shevchenko, V. B., Povitskiy, N. S., Solov'kin, A. S., Shilin,  
 I. V., Lunichkina, K. P., Tsvetkova, Z. N.

SOV/78-3-9-16/38

## TITLE:

The Extraction of Nitric Acid With Tributyl Phosphate  
 (Ekstraktsiya azotnoy kisloty v tributilfosfat)

## PERIODICALS:

Zhurnal neorganicheskoy khimii, 1958, Vol 3, Nr 9, pp 2109-2112  
 (USSR)

## ABSTRACT:

The distribution of nitric acid between the aqueous and the organic phase containing tributyl phosphate in dependence on the aqueous phase and the nature of the solvent of tributyl phosphate was investigated. From the results may be concluded that  $K_p$  considerably depends on the nature of the solvents of tributyl phosphate. The influence of the nature of the solvents on the distribution of nitric acid between water and tributyl phosphate was investigated in the case of an ionic strength of the solution of 1, 0.5 and 3. The maximum value of  $K_p$  in nitric acid solution with the ionic strength of 3 is obtained if toluene is used as solvent for tributyl phosphate. The change of  $K_p$  by the nature of the solvent in the case of an

Card 1/2

ionic strength of 3 is to be divided as follows: toluene, benzene, kerosene,  $CCl_2F-CCl_2F$ ,  $CCl_4$ . The following variation of the above sequence takes place if the ionic strength is reduced to 1: kerosene, toluene, benzene,  $CCl_2F-CCl_2F$ ,  $CCl_4$ . Comparative investigations of the extractions in  $HClO_4$  and  $HNO_3$  solutions showed that the complex  $HClO_4 \cdot TPPH$  is to a greater extent polar than the complex  $HNO_3 \cdot TPPH$ .

There are 2 figures, 1 table, and 9 references, 4 of which are Soviet.

## SUBMITTED:

August 3, 1957

Card 2/2

SOLOVKIN, A.S.; TSVETKOVA, Z.N.

Chemistry of the aqueous solutions of zirconium salts (does  
a zirconyl ion exist?). Usp.khim. 31 no.11:1394-1416 N '62.  
(MIRA 15:12)

(Zirconium salts) (Zirconyl ion)